Alexandria, VA 22313-1450

Sir:

## N THE MADE STATES PATENT AND TRADEMARK OFFICE

In re Ap	oplication Of:		
Re	ebecca L. SIEGEL et al. )	Group Art Unit:	3624
Applica	ition Number: 09/901,078 )	Examiner: Stefano	os KARMIS
Filed:	July 10, 2001	Confirmation No.:	7083
For:	SYSTEM AND METHOD FOR SUI OPERATIONS	PERVISING ACCOUNT	T MANAGEMENT
	ГОР <b>A</b> MENDMENT ssioner for Patents x 1450		

## DECLARATION OF DR. WILLIAM F. MANN III UNDER 37 C.F.R. § 1.132

- I, Dr. William F. Mann III, a citizen of the United States, hereby declare and state as follows:
- 1. I am First Vice President of Patent Business Development, Office of the General Counsel, Legal Department, Tech, Sourcing & IP Law for formerly First U.S.A. Bank, N.A. ("First USA"); formerly Bank One, Delaware, N.A.; and now JPMorgan Chase & Co ("JPMorgan").
- 2. I received a Bachelor of Science at the United States Military Academy, West Point, N.Y. (1976); a Masters of Science (Operations Research) at the Air Force Institute of Technology, Wright Patterson AFB, Ohio (1991); and a Doctor of Engineering at Southern Methodist University (SMU), Dallas, Texas (1998).
- 3. I have worked with First U.S.A. Bank, N.A. and affiliated companies since June 1, 1999, and have served as Vice President for the Operations Research Team for

the Customer Support Division and First Vice President, Patent Business Development for the Law Department.

- 4. I have personal knowledge of the Delinquency Movement Matrix ("DMM") system developed by First USA, which is the subject matter of U.S. Application No. 09/901,078 ("the '078 Application").
- 5. I have read the '078 Application and have examined various documents and prior art references related to the prosecution of this application.
- 6. I have access to and knowledge of First USA's confidential financial information.
- 7. I have been asked to submit this Declaration to demonstrate the commercial success of the invention claimed in the '078 Application.
- 8. In the 1998 to 1999 time frame, First USA had approximately \$69 billion in credit card debt. Credit card debt is non-secured personal debt, and therefore it presents a high risk to the creditor. Historically, credit card debt that is less than 30 days past due is typically recoverable, but the ability to recover the debt decreases as the account becomes more delinquent. Under banking regulations, credit card debt that is over 180 to 210 days past due can no longer be maintained as an asset on the balance sheets, and must be written off as a loss.
- 9. In the 1998 to 1999 time frame, First USA employed about 2,500 customer service representatives ("CSRs"), at nine different sites, to undertake debt collection activities. First USA used generally standard debt collection processes in which CSRs telephoned debtors to attempt to obtain remittance on delinquent accounts. For example, the CSRs obtained promises to pay on delinquent accounts, and were evaluated according what percentage of the promised amount was actually remitted. CSRs were also evaluated according the to average size of the fulfilled payments. Both of these measurements failed to provide a total picture on how well a CSR was doing for the company's bottom line.

- 10. Despite the implementation of these and other generally standard debt collection practices, In the 1998 to 1999 time frame, First USA suffered approximately \$3.9 billion in losses of unsecured credit card debt per year. That is to say, \$3.9 billion worth of delinquent accounts became more than 180 days past due. This, of course, represented a tremendous (but typical) commercial loss to the company.
- 11. During the period of 1999 to 2000, I was the Vice President of the Operations Research Team, which included six to twelve people, half of whom held Doctorate degrees. The mission of the Operations Research Team was to make the collections effort more effective and efficient. As part of this mission, the Operations Research Team was tasked with analyzing First USA's debt collection practices to determine how to reduce the losses on unsecured credit card debt.
- 12. Working with the Operations Research Team, the inventors of the present application Rebecca Lynn Siegel (a site manager in First USA's Frederick, Md. collection facility), Jeffrey David Finocchiaro (an analyst working directly for me), and William Fredrick Herberger (the head of operations) ultimately conceived of and developed the Delinquency Movement Matrix ("DMM"), which is the basis for the '078 Application. The DMM incorporates the novel approach of using the change in delinquency level of a credit card account as a metric in evaluating and rewarding the collection efforts of CSRs.
- 13. Prototype versions of the DMM were developed and tested within First USA, and First USA ultimately purchased an IBM cluster mainframe computer for approximately \$250,000 to implement the DMM in commercial use at the institutional level. The use of this powerful computer was necessary to track the delinquency movements of the large number of accounts that formed the First USA asset portfolio,

<sup>&</sup>lt;sup>1</sup> It is my understanding that First USA was only the third entity to purchase this type of computer, with the other two being acquired by the National Security Agency and the National Reconnaissance Office.

and thereby determine the effectiveness of the CSRs handling the accounts, in a timely manner.

- The commercial embodiment of the DMM includes a CSR evaluation 14. system that examines the baseline status of a delinquent account, then compares this status with an updated status after a predetermined period has elapsed to determine the change in the level of delinquency of the account. The DMM then generates a score based on the change in level of delinquency, and assigns this score to the CSR handling the account. These features are described in the relevant pages of the August 2, 2005 First Discovery Training Manual for the DMM<sup>2</sup> (the "DMM Training Manual"), which are attached hereto as Exhibit A. As shown in the DMM Training Manual excerpts, the DMM works by comparing the balance and level of delinquency of an account at the time a promise to receive payment is made, and compares this to the balance and delinquency level ten days later. DMM Training Manual, p. 12. "DMM then ... looks at how the delinquency has changed on the account in the 10-day period." Id. Once the change in delinquency is determined, the DMM multiplies the balance of the account by the total number of delinquent buckets moved to arrive at a DMM Points number. *Id.*, at p. 13. DMM Points are calculated for forward rolls (increasing delinquency), backwards rolls (decreasing delinquency), and static rolls (no change in delinquency). Id., at p. 14. The DMM Points are eventually used to evaluate the CSR's performance, and assess incentive pay to the CSRs. See, id., p. 27.
- 15. The effect of the DMM on reducing First USA's losses on unsecured credit card debt was immediate and dramatic. For example, prototype testing showed an 11% increase in collected funds over the existing conventional system. The commercial embodiment has also shown a similar increase in collected funds, as explained later herein in a direct comparison of the DMM with a competing debt collection system.

<sup>&</sup>lt;sup>2</sup> The cited portions of this manual were prepared for use with JPMorgan's implementation of the DMM, and are based directly on First USA's DMM system.

- 16. In addition to dramatically reducing credit card debt losses, the implementation of the DMM allowed First USA to greatly improve the efficiency of its CSR workforce. Once the DMM performance evaluation regime was implemented, First USA was able to accurately determine each individual CSR's effectiveness at obtaining remittance on delinquent accounts. Since the DMM has been implemented, First USA has been able to remove approximately 500 ineffective CSRs, and close three collection sites, thereby reducing the total operating costs of the company and increasing its overall efficiency. This savings, alone, represented a significant commercial success for the company.
- 17. The DMM also allows CSRs and their administrators to immediately understand their contribution to the company's bottom line, and rewards them for doing so. As such, the incentive program facilitated by the DMM has been effective at motivating CSRs to adapt their collection practices to achieve the company's goals. At the present time, JPMorgan (First USA's successor entity) pays nearly \$1.5 million in bonuses to its CSRs based on the performance measuring system provided by the First USA DMM, and it is not unusual for a CSR increase his or her monthly pay by \$700 or more. As such, the commercial success of the DMM extends to the CSRs themselves.
- 18. The success of the DMM can be attributed to features and advantages of the invention described in the '078 Application. For example, as noted above, the DMM provides a tool to evaluate and remove ineffective CSRs, which creates a more efficient workplace. This feature and advantage of the invention is described in the '078 Application at page 12, line 1 to page 16, line 2, and elsewhere. In doing so, the DMM system also provides the CSRs with a motivation and guidelines to conform their collection activities with First USA's strategy of reducing credit card loss by emphasizing reduction in delinquency levels, rather than simply attempting to obtain high average payment amounts or high remittance percentages on promises to pay. In doing so, the DMM has created more effective collection habits among the CSRs, which has manifested itself as a dramatic reduction in credit card debt losses, as shown above.

- 19. Furthermore, the features and functions of the DMM have clearly contributed as a major factor to the commercial success achieved since the implementation of the DMM.
- 20. The commercial success of the DMM is perhaps best illustrated by the events that occurred during the recent merger of First USA with JPMorgan Chase. After the merger, JPMorgan (the merged entity) carefully studied the two original companies' debt collection practices to determine which practice was more effective and whether the more effective practice could and should be adopted by the other company. The study culminated in the development of the Collections Effectiveness Matrix ("CEM Report"), which is attached as Exhibit B in redacted form to protect trade secrets contained therein. The CEM Report provides a back-to-back analysis of First USA's DMM (which is referred to as the BOCS "Bank One Collection System"), and JPMorgan's Heritage Chase Card Services ("CSS," or "hCSS"). As such, the CEM Report represents a concerted study comparing an embodiment of the present invention with known credit collection practices.
- 21. The CEM Report begins by comparing the asset portfolios that have been handled by the DMM and CSS systems to determine whether they are similar enough to conclude that a comparison of the systems' performance is a true like kind analysis (that is, an "apples-to-apples" comparison). To clarify the terminology, the CEM Report refers to First USA's DMM (the present invention) as "Strategy B," and sometimes as the "BOCS"<sup>3</sup> Strategy. The old CCS system is referred to as "Strategy A," and sometimes as the "CHASE" strategy. As shown in Slide 2, the CEM Report compares the asset mixes of the two systems, and concludes that they are similar. CEM Report, Slide 2. In fact, the CEM Report concludes that "[f]rom a prior delinquency experience perspective, there are only minor differences between the two portfolios," id., Slide 6, and that "[f]rom a balance weighted perspective, there is no material difference between the

<sup>&</sup>lt;sup>3</sup> An acronym for "Bank One Customer Service."

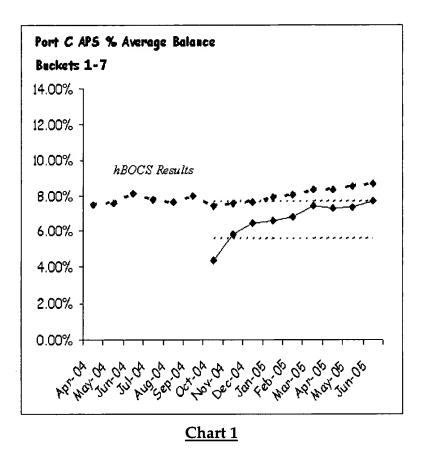
two portfolios." *Id.*, Slide 7. Based on the analysis, the CEM Report concludes that there is "[n]o indication that BOCS approach will be ineffective against CHASE's portfolio, " *id.*, Slide 14 — that is, the similarity between the asset portfolios indicates that the DMM can be applied to the assets being handled by the old CSS system. These conclusions demonstrate that the CEM Report is a true "apples-to-apples" comparison of the performance of the DMM versus the performance of the CSS.

- 22. The CEM Report analyzes the DMM ("Strategy B") and the conventional CSS debt collection system ("Strategy A") with regard to "liquidation" (payments over a 6-month period divided by initial balance and number of months), "loss" (cumulative losses over a 6-month period divided by initial balance), and various other factors. The nature of many aspects of this comparison is proprietary information, and therefore the CEM Report has been redacted to retain these trade secrets. As shown in Slide 2, which summarizes the CEM Report, the DMM is superior to the conventional CSS debt collection system in nearly every respect.
- DMM is clear. For accounts in Bucket 1, the CEM Report indicates that the DMM liquidation effectiveness exceeds the CSS in 90% of the comparison metrics ("cells"), and outperforms the CSS by over 10% in 64% of the comparison metrics. See, CEM Report, Slide 2 (the second column designates comparison results for Bucket 1, and the third column designates comparison results for Buckets 2-6). The CEM also indicates that the DMM's loss performance outperforms the CSS by over 10% across the board. Id. Considering that Bucket 1 represents approximately 63% of the total amount of outstanding debt owed to JPMorgan, see Slide 19, and that the total debt is measured in billions of dollars, these performance differences represent a tremendous commercial success for the DMM system. Similar benefits are obtained for accounts in Buckets 2-6, in which the DMM achieves higher liquidation rates than the CSS in 93% of the comparison metrics, and by more than 10% in 85% of the metrics. See Exhibit B, Slide 2. The DMM also outperforms the CSS with regard to losses for Buckets 2-6—

outperforming the CSS in 84% of the comparison metrics, and by more than 10% in 57% of the metrics. *Id.* In view of the foregoing evidence, it is clear that the DMM clearly outperforms the old CSS system, resulting in tremendous commercial success in the form of higher liquidation and lower loss.

- 24. The CEM Report also notes that the higher liquidation rates of the DMM system are attributable to correspondingly higher average payment sizes in both early and late stages of delinquency. The CEM Report also suggests that the DMM provides incentives to increase average payment size. *Id.*, Slide 10. The CEM Report further identifies that "[t]here is a direct relationship between Average Payment Size and Bucket Movement," *id.*, Slide 11. The CEM Report also states that the DMM system "seems to lead to higher Roll Back rates and lower Roll Forward rates" that is, the DMM achieves the goal of moving accounts into lower states of delinquency. *Id.*
- 25. Remarkably, the DMM achieves this commercial success with lower cost and fewer employees than the old CSS system. As shown in slide 8, "Strategy B and associated management practices [DMM] seems to yield better effectiveness at lower cost ...." *Id.*, Slide 8. Furthermore, the DMM system has significantly fewer CSRs than the old CSS system. *See*, Slide 12 ("Strategy B [has] significantly lower Customer Service Representatives"). The DMM's lower workforce numbers is largely a result of the DMM's ability to accurately identify and reward CSRs that are performing better than others, and release CSRs that are not effective at improving the company's bottom line.
- 26. As a result of the CEM Report and other analyses, it was decided that JPMorgan would integrate the DMM into its Heritage Chase Card Services division and other credit recovery divisions. This integration began in 2004, but even at this early stage the effect of the DMM on reducing losses on unsecured credit card debt can be seen. For example, Chart 1 shows the Average Payment Size ("APS") as a percentage of the average balance of credit card accounts for the HCC system (the lower line), and First USA's original DMM (the upper line marked as "hBOCS Results"). As shown in

Chart 1, since incorporating the DMM into the HCC system, the APS has increased 76% since October of 2004 (from just over 4% in November of 2004 to almost 8% in July of 2005). This data confirms the CEM Report's analysis.



27. Based on my understanding of the invention and its implementation at

First USA and its successor entities, as described herein and otherwise known to me, the DMM has been the direct cause of significant improvements in reducing losses on delinquent credit card accounts, increasing CSR workforce efficiency, and improving CSR motivation. Each of these factors have contributed, both separately and together,

to the commercial success of the entities that have employed the DMM.

28. All statements made herein of my own knowledge are true, and all statements made on information and belief are believed to be true. These statements were made with the knowledge that willful false misstatements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such

willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Company of the Section	PATENT	DECLARATION OF COMMERCIAL SUCCESS ATTORNEY DOCKET NO. 47004.000089
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		Dr. William F. Mann III
		DATE: 04 Ay 05
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	in and for the County and State afortome known and known to me to	2005, before me a Notary Public presaid, personally appeared who signed and sealed nowledged the same to be of his free act and deed.
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EARDARA A. JACKSON NOTARY PUBLIC CELAWARE MY COMM. EMPIRES 9//2 Exhibit A - Excerpts from First Discovery Training Manual

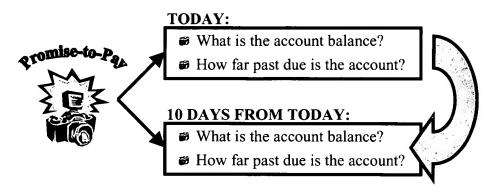
## **DRAFT** Calculating DMM Points

## **How DMM works**

When a CSA enters a promise-to-pay on an account, DMM "takes a picture of the account." At this point it captures several facts about the account, but the two pieces of information we are interested in are:

- (a.) the balance of the account
- (b.) the level of delinquency on the account (in terms of cycles/buckets past due).

DMM then takes a second picture of the account *ten days later*, at which point the promise that started the process is either kept or broken. DMM then compares the two photos and looks at how the delinquency has changed on the account in the 10-day period.



## **DMM WANTS TO KNOW:**

Is the account less delinquent?
Is the account more delinquent?
Is the account at the same level of delinquency?

Again, DMM is only activated by a promise-to-pay. As always, the CSA must operate within the promise-to-pay guidelines to establish what payment arrangement constitutes a promise and what does not.

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## **DRAFT Calculating DMM Points (continued)**

## So How Many Points Do I Earn?

Multiply the balance of the account times the number of delinquent buckets moved. This calculation gives you your total DMM points earned or *Weighted Dollars Earned*.

 $\Rightarrow$  DMM Points = (Balance) X (Buckets)

Levels of Delinquer	<u>1cy</u>
Up-to-Date 0	buckets
1- 30 DPD1	bucket
31-60 DPD2	buckets
61-90 DPD3	buckets
91-120 DPD4	buckets
121-150 DPD5	buckets
151-180 DPD6	buckets
181-210 DPD7	buckets

## **Examples:**

**#1.** Michael brings an account that is 68 DPD with a \$7,000 balance all the way upto-date.

Question: How many DMM points does he earn for this account?

Answer: \$21,000 DMM points.

**#2.** Rachele works an account with a \$10,000 balance that is 155 DPD, and is able to bring it to 75 DPD.

Question: How many DMM points does she earn for this account?

**Answer: \$30,000 DMM** points.

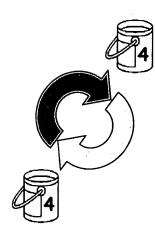
## DRAFTforward, Static, and Backward Roll

Forward, static, and backward rolls are situations that arise because of changes in the level of delinquency on an account. The type of roll is determined by comparing the two DMM pictures: (a.) the first taken when the promise-to-pay is entered; (b.) the second 10 days later. Understanding how the delinquency on an account can change in this 10-day time period will help us classify which situation applies.



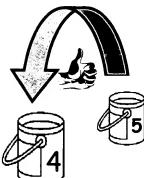
## Forward Roll

- The account moved 1-cycle further past due.
- This situation can only happen if the account bills during this period.
- Has negative impact on DMM; the balance of the account counts as negative DMM points, and subtracts from overall DMM points.
- Situations that would result in Forward Roll:



## Static Roll

- The account moved no further past due, nor any closer to current.
- This situation can happen whether or not the account bills in this period.
- Has a neutral impact on DMM; no points are earned or lost.
- Situations that would result in Static Roll:



## **Backward Roll**

- The account has improved in delinquency.
- This situation can happen whether or not the account bills in this period.
- Has a positive impact on DMM; points are earned based on the formula (balance) X (# of buckets moved).
- Situations that would result in Backward Roll

## **DRAFTDetermining Incentive Pay from DMM**

Incentive pay is awarded on two levels:

- 1. For meeting all qualifiers, \$100 incentive pay is earned for a full-timer. A part-timer earns \$100 times the part-time schedule for meeting all qualifiers. For example, a person who works 20 hours per week has a part-time schedule of 0.5 (= 20/40) and will earn \$50 (= 100\*0.5). Similarly, a person who works 30 hours per week has a part-time schedule of 0.75 (= 30/40) and will earn \$75 (=100\*0.75).
- 2. For each 1000 DMM points above the DMM Point Threshold a flat payout rate is utilized, according to your functional group. Payout rates vary by functional group and current parameters. These cents are established based upon actual performance and ongoing enhancements to our incentive program.

## **Examples:**

Account Control	= 27 ¢ per 1000 points
Loss Control	= 52 ¢ per 1000 points
Contact Development	= 50¢ per 1000 points
Unique Portfolios	=67¢ per 1000 points
Product Segmentation	=67¢ per 1000 points

Calculating the amount of incentive pay is an easy process once all qualifiers are met:

- 1) Calculate total DMM points (Weighted Dollars Earned) earned
- 2) Subtract Minimum DMM Point Threshold times the Part-Time schedule.(Part-time schedule = Hours Worked per week/40; Part-time schedule for a full-timer is 1.)
- 3) Divide by 1,000
- 4) Multiply by functional group's cents/1000 points over threshold
- 5) Add initial payout of (\$100\* Part-Time schedule)

Exhibit B - Collections Effectiveness Matrix - Initial Review

BOCS-CCS Merger Integration

Tuesday, August 02, 2005

**Total Portfolio** 

☐ Data gives no indication that Legacy BOCS Strategy ("Strategy B") will not be effective against 92.5% of CCS portfolio (excluding Low Prime).

Froughly 62% attributable to Collections Effectiveness. Supports likelihood of

	Unit of Measurement	Зисхве	3ucxet 2⊷ô
Asset Mix	Balance range and prior delinquency experience.	Similar Asset Mix across prior delinquency score categories, with the exception of the Medium delinquency level (Score 4-7).	Simlar mix across the prior delinquency score categories. Balance drives the differences principally.
Liquidation	Cumulative payments over 6-mo period divided by Initial Balance and number of months.	in 64% of cells (18 out of 28), Strategy B exceeds Strategy A by more than 10%. In 90% of cells (25 out of 28), Strategy B's absolute rates are higher than Strategy A's.	in 85% of cells (119 out of 140), Strategy B exceeds Strategy A by more than 10%. in 93% of cells (130 out of 140), Strategy B absolute rates are higher than Strategy A
ross	Oumulative Losses over 6-mo period divided by Initial Balance.	In 100% of cells (28 out of 28), Strategy B exceeds Strategy A by more than 10%.	In 57% of cells (80 out of 140), Strategy B exceeds Strategy A by more than 10%. In 84% of cells (118 out of 140), Strategy B absolute rates are higher than Strategy A
		Strategy A consistently shows higher evels across all cells	Strategy A consistently shows higher levels across most buckets. Strategy B has higher the bucket 6.
		Early Stage (Buckets 1-3)	Late Stage (Buckets 4-6)

Strategy A: CHASE Strategy B: BCCS

BOCS-CCS Merger Integration

Tuesday, August 02, 2005

Portfolio Performance (excluding Bucket 1)

## 350% 40.0% 45.0% 50.0% 55.0% 60.0% 85.0% 70.0% Buckets 2 to 6 - Liquidation vs Loss Ch-Off rate Lowellestone Liquidation vs. Loss Low Ballance %0 OK 4.0% Monthly Liq. ان ان 0.5% 3.5% 30% 1.0%

Comparative Results

- ("Strategy B") reflect relationship CCS ("Strategy A") and BOCS on similar slope lines
- Strategy B tends to drive liquidation at higher rate

Strategy B

@ Strategy A

- (controlling for prior delinquency score). Charge-off rate declines as liquidation increases across all balance ranges 0
- **Implications**
- What role does asset rhix play in these results?
- ☐ "Quality", e.g. FICO score
- ☐ Average Balance

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**BOCS-CCS Merger Integration** 

Tuesday, August 02, 2005

Strategy A.

B. Carrie Harry 4 HARajes

164 E 11,101 57,700

\$1,000 \$2,000

31,900

Strategy B

> 315,000

Onteny B

\$1,500 \$407.CO 1003375 1007015

## **Asset Mix**

## Collections Effectiveness Matrix Initial Review

☐ From a prior delinquency experience perspective, there are only minor differences between the two portfolios.

☐ In 23 out of 24 cells the variance between the two portfolios was within a +/- 10% range (the one instance being bucket 1 medium prior delinquency score -14.08%).

C Positive variations denote instances where BOCS maintains higher levels of concentration.

		Joing James	Print Salinquency Score		
	New Entrants	איט,!	भटव	High	111
Bucket 1 Variance	%619	4.29%	-1408%	-704%	0.69%
Bucket 2 Variance	%61.1	%019	-1.40%	%91·6·	1.68%
Bucket 3 Variance	2 10%	407%	4 82%	.723%	-6.27%
Bucket 4 Variance	-5 24%	-7.02%	2.89%	6.12%	2.15%
Bucket 5 Variance	.1.30%	-8.73%	-0.41%	B.04%	-2.50%
Bucket 6 Variance	0.18%	-6.54%	.0.38%	%6٤'9	-5.21%
BOCS % of Total OS	25.47%	34.94%	19.50%	20.09%	100.00%

BOCS-CCS Merger Integration

Tuesday, August 02, 2005

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**Asset Mix** 

 $\Box$  From a balance weighted perspective, there is no material difference between the two portfolios.

Approximately 60% of the total OS (Buckets 2 to 6) is found within the balance ranges [\$4,500 - \$7,500] and [\$10,000 -\$25,000j. There is minimal variance between the two portfolios within these ranges. ☐ BOCS has greater concentration in balances >\$10,000 (37.4% vs. 30.4%) while Chase is more concentrated with balances between \$4,501-\$10,000 (45.5% vs. 40.7%).

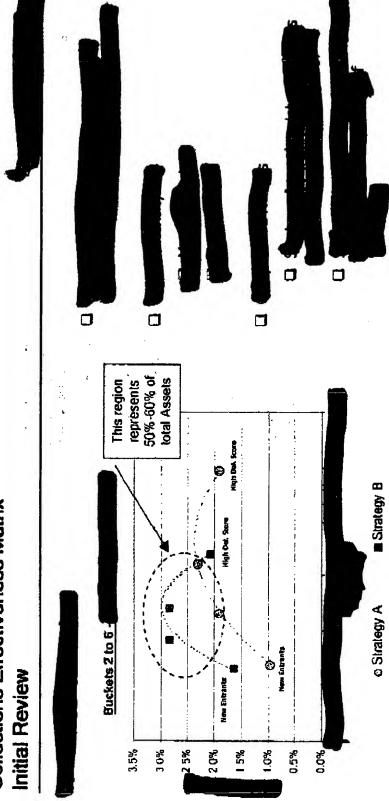
Positive variations denote instances where BOCS maintains higher levels of concentration.

# Asset Alix dy Beylinding Balancz Range 1% difference in balance composition by Bucket OS)

				Beginning	deginanes Bainanes Bunga			
	31,300	00/25 10/15	SC 201 54 976	54 591 67 330	200 015 10 15	DDC 525 100-145	++45 304	#1
Bucket L Variance	5.85%	-15.92%	-(3 45%	-16 13%	-15.77%	1597%	76.08%	0.69%
Bucket 2 Variance	6 57%	-5 54%	.0.02%	-2.55%	.12.70%	0.51%	63.76%	1.68%
Bucket 3 Variance	8 35%	1.84%	3.47%	.1.55%	-15,79%	-3 10%	65.30%	-6.27%
Bucket 4 Variance	12 18%	.26 05%	9.48%	.194%	8.57%	2.77%	62.34%	2.15%
Bucket 5 Variance	14 39%	-27 12%	-13.76%	-1.76%	.6.58%	307%	57.43%	-2.50%
Bucket 6 Variance	24,96%	. 26,40%	%68 91	.2.94%	.7 44%	4.03%	59.56%	-5.21%
BOCS % of Total OS	\$1 <del>0</del> .1	6.35%	13.52%	25.04%	15.62%	32.24%	5.21%	100.00%
CHASE % of Total 05	1.68%	7.47%	14.86%	27.72%	17.83%	28.95%	1,50%	100.00%

**BOCS-CCS Merger Integration** 

Fuesday, August 02, 2005



☐ Implications

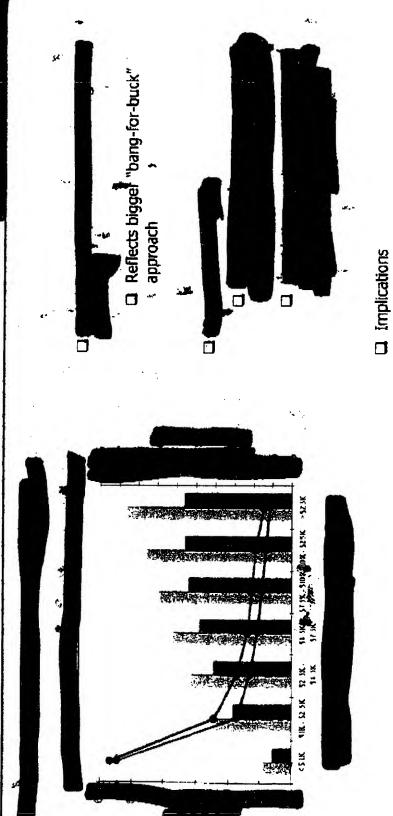
- yield better effectiveness at lower management practices seems to Character B and associated cost than Strategy A
- □ Results consistent across prior delinquency experience bands

BOCS-CCS Merger Integration

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Strategy A: CHASE Strategy B: BOCS



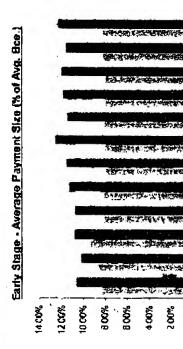
yield better effectiveness at lower management practices seems to ☐ Strategy B and associated cost than Strategy A ☐ Results consistent across balance ranges

> Strategy A: CHASE Strategy B: BOCS

**BOCS-CCS Merger Integration** 

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## Average Payment Size



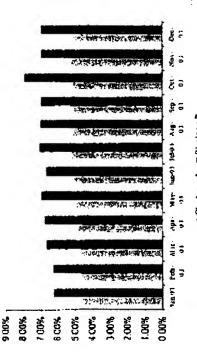
Late Stage - Average Payment 8/26 (% of Avg. Bce.)

¥ Strategy A ■ Strategy B

Feb. Mar. 93 03

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Strategy A # Strategy B

Strategy A: CHASE (Core and Providian)

Strategy B: BOCS

**30CS-CCS Merger Integration** 

Tuesday, August 02, 2005

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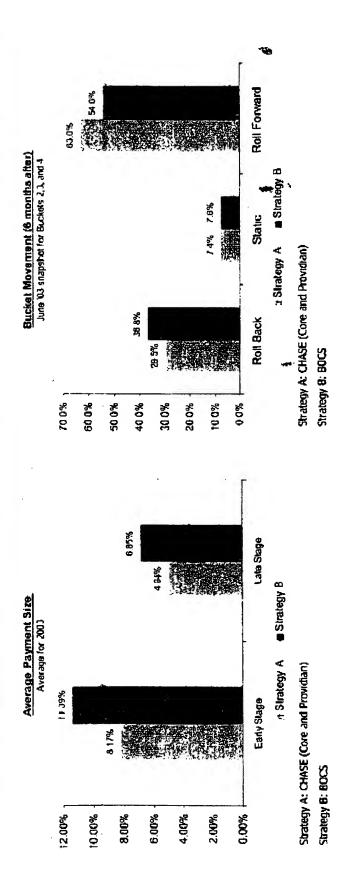
- Strategy B has higher liquidation rates due Payment Sizes in both Early and Late to correspondingly higher Average stages of delinquency.
- ☐ Early Stage: Strategy B's APS is 51% larger than Strategy A.
- Clabe Stage; Strategy B's APS is 36% larger than Strategy A.

Moreover, Strategy B seems to be ncenting growth in APS ۵

- Early stage: Strategy B's APS growth compared to Strategy A's growth of rate of 15% since April '03 ess than 1%.
- Late stage: Similar growth rates for both Strategles around 4% since April '03. O
- Data obtained from common set of books.

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## Average Payment Size

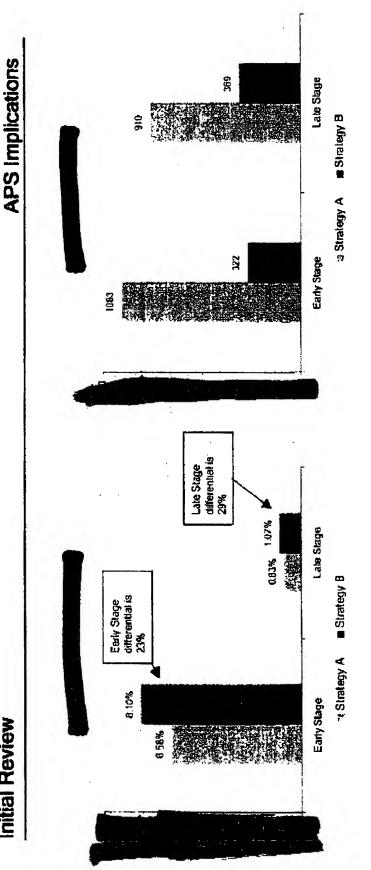


- There is a direct relationship between Average Payment Size and Bucket Movement.
- Average Payment Size for Strategy B seems to lead to higher Roll Back rates and lower Roll Forward
- There is a 39% APS differential in early stage and 38% APS differential in late stage.

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rates in both early and late stages with significantly lower Customer ☐ Strategy B is generating Service Representatives.

Transitioning to Strategy B's Collections Model

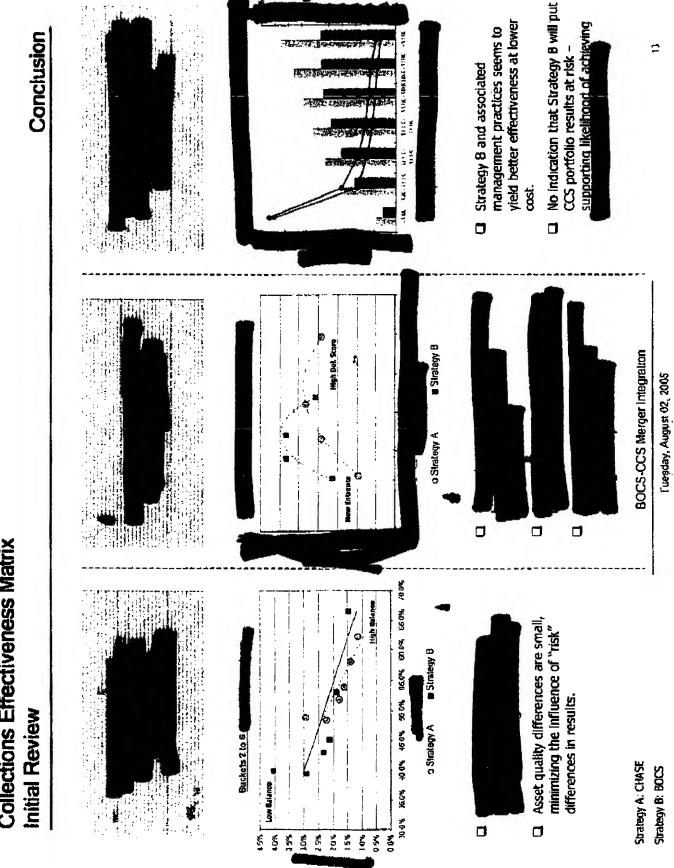
Strategy A: CHASE Strategy B: BOCS

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# Collections Effectiveness Matrix



## **Implications**

## Implications

- No indication that BOCS approach will be ineffective against CHASE's portfolio. a
- Performance parity or advantage in BOCS model across gisk and balance fanges consistent.
- tow Prime still an "open question" although less than 8% of total CCS Portfolio.
- ☐ Adopting Strategy B
- Targeting changes: queue fewer accounts for action even beyond impact of drop day.
- Production changes: predictive dialing increases and "no call" review activity declines.
- raining approach: emphasis on collaborative solutions (STP) which result in resolution of
- delinquency through curing.
- Significant Additional Opportunities

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- Adopt Strategy, A approach with appropriate testing for very high balance (Balance >\$25,000)
- Strategy A Loss Rate **62.25%** vs. Strategy B Loss Rate **66.49%** in B2-B6.
- Strategy A Loss rates better for new entrants in Buckets 4 and 5 with similar liquidation rates. Develop a uniform approach to assets with no prior delinquency experience (New Entrants).
- Fine tune intensity by Balance Range within a Buckets

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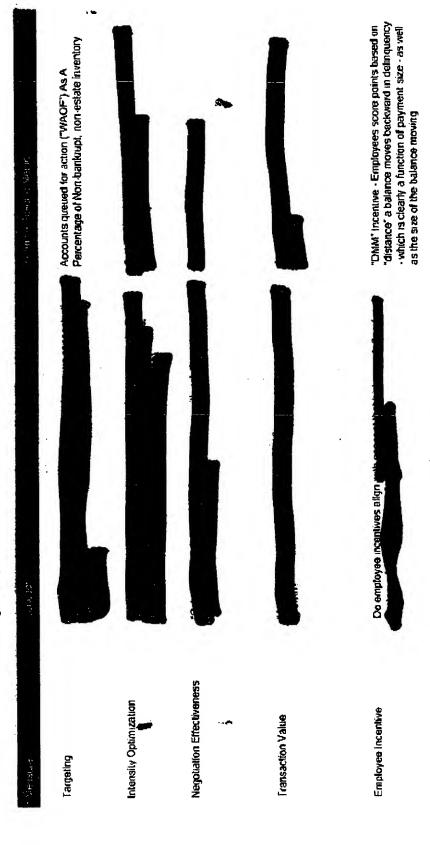
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# Measurement & Metrics Evolution

## Liquidation

- Cumulative Cash Payments over the 6-mo period divided by Starting Balance and number of months
- Metrics focus on securing a payment and maximizing the size of that payment



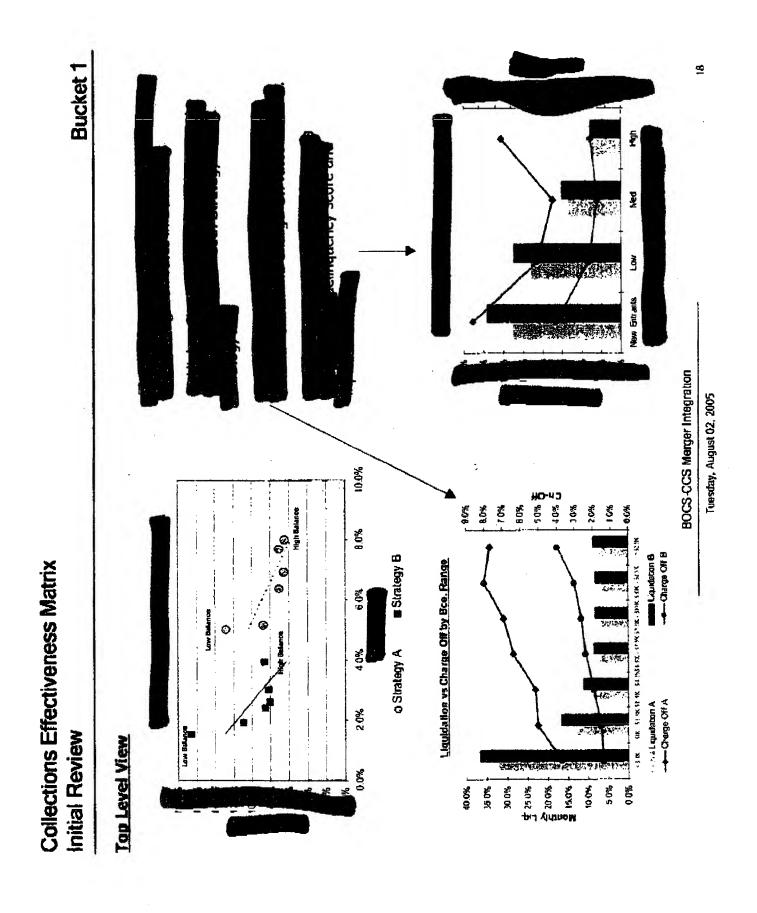
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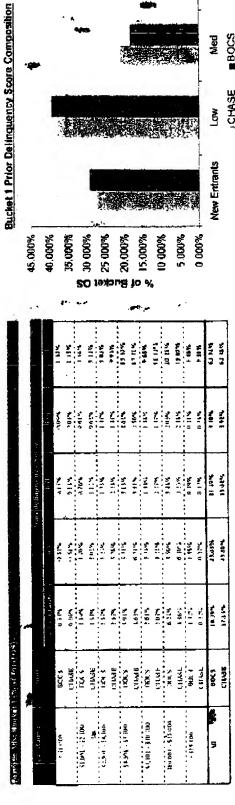
Collections Effectiveness Matrix

Initial Review



## **Bucket 1**

## Portfolio Mix



□ Bucket 1 represents approximately 63% of BOCS CHASE total OS for both portfolios.

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composition is similar in all but the medium □ Bucket 1 prior delinquency score prior delinquency score category. C) Most significant concentration of balances found between \$4,501-\$7,500 and \$10,001-\$25,000 with low prior delinquency scores.

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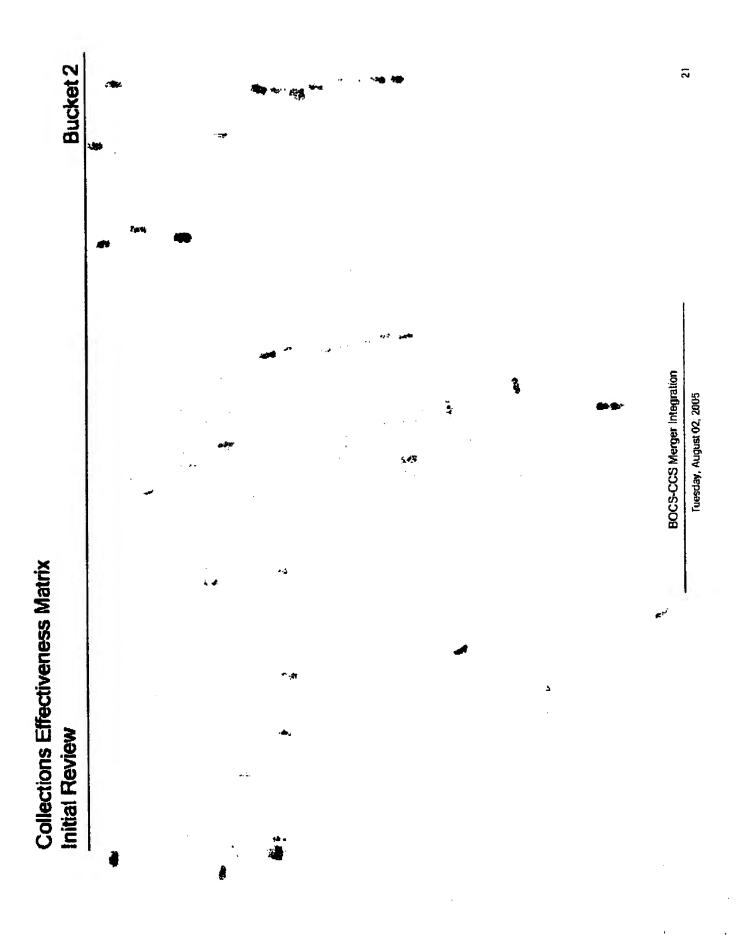
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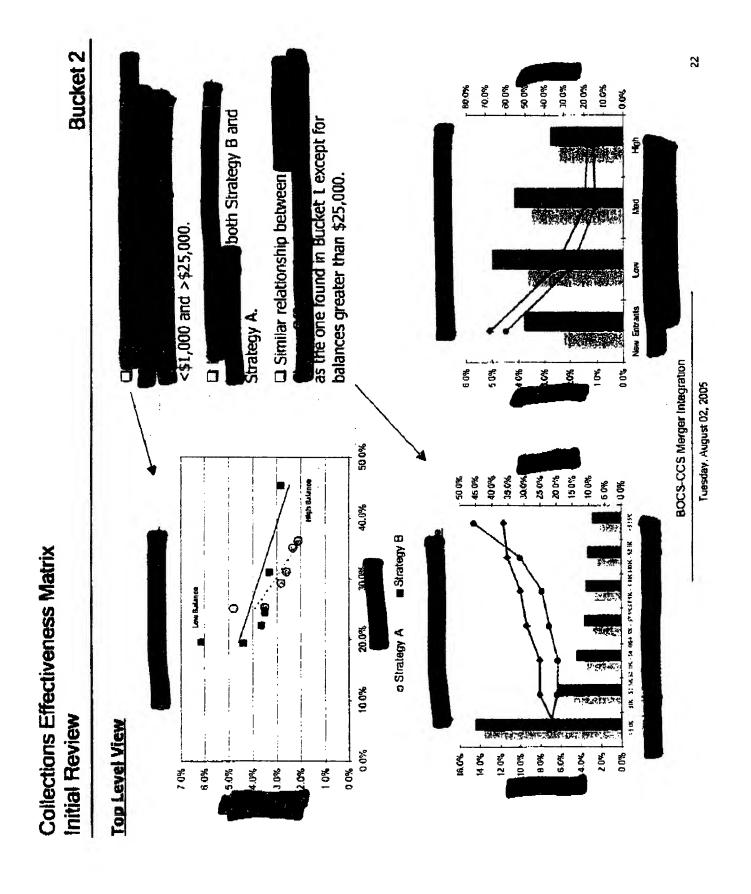
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(due to payments from ranges observed in both lare higher R **Bucket 1** 100E S Note: Shaded cels correspond to those in which difference between Strategy A and Strategy 8 is higher than 10% ho keri | Nonthis Ifquelation of opiniel (98) es Salance flange and Pine benegione; Score for higher delinquency score accounts. However, 3 3 3 3 accounts that roll back to current status). Both Strategy A and Strategy B' portfolios for this bucket. Streets & A **BOCS-CCS Merger Integration** Tuesday, August 02, 2005 1611.00 3h tul - 57 110 5 i. 34 - 57 548 \$7.59 SIN-100 40.41.8 103.41 51 Int - 34 (00 SE SES TRICES 0.0% 84,341 - 31,110 000 ves 144 c5 it, '01 - 5: ius (1, 201 - Sr Jun c \$1,6c0 c.#1,700 400% ŠE 100% 20 OK 150% 25.0% £0€ \$ 000 t Collections Effectiveness Matrix High Pet Scure 0 ■ Strategy B Bucket 1 - Intensity vs Liquidation 0 o Strategy A Initial Review EX :C K -0+ 35 35 2 7.0 -0.5 ~





## Collections Effectiveness Matrix Initial Review

**Bucket 2** 

Bucket 2 represents approximately 14% of Ę Bucket 2 Prior Delinquency Score Composition **■**80CS Med CHASE Š New Entrants 35.000% % of Bucket OS 25.000% 15 0000% 10 000% 10 000% 0.000% 5.000% 30.000% 10 m -2000 A 2000 A 20 ž : 3.08% Pacifolio Mini Burbet 21/2 of Toral Bucket (IN) Radiolog Myr. Bushor Series Translass CCCS CITIAGE INCCC CITIAGE INC CTILLE BUCS CITICS CITI Portfolio Mix 10.15 SI 6.031 STOCAL 14:01 S2501 22 SBN - 51 XBC4 11 101 14 YE ce: \$15 · 0 0) 15 >

total OS for both portfolios

variance occurs in the high prior delinquency □ Bucket 2 prior delinquency score mix is similar for both portfolios. The greatest score category.

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between \$4,501-\$7,500 and \$10,001-\$25,000 ■ Bucket 2 balances are concentrated with high delinquency scores

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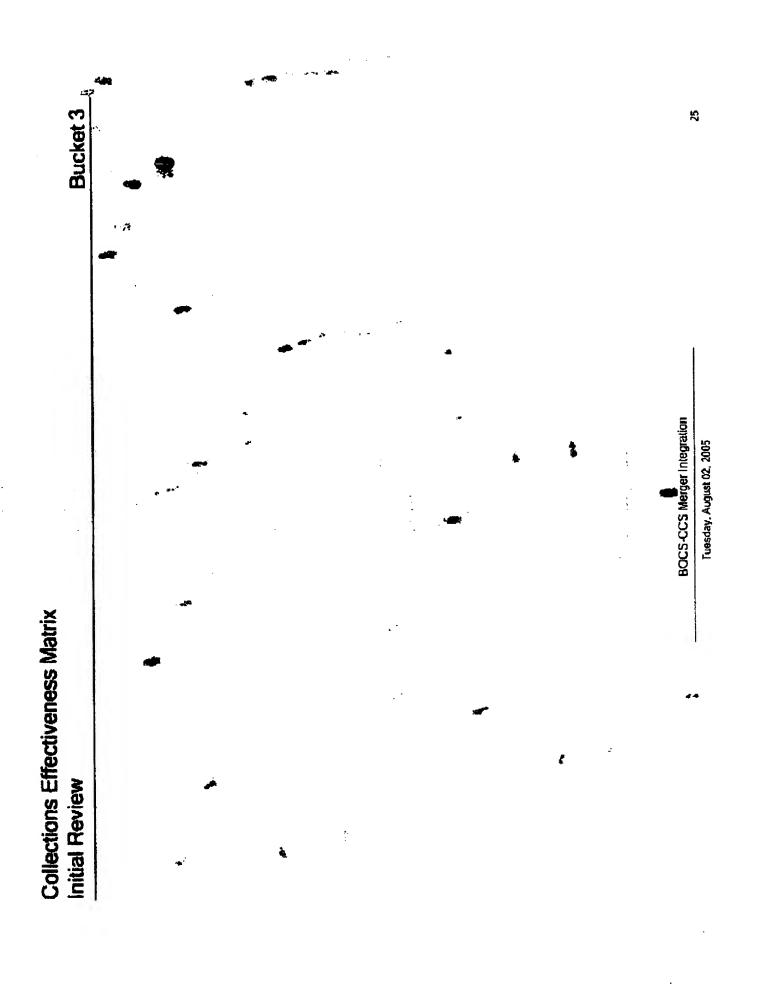
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### rates across types. Shafed cells correspond to those in which difference between Strategy. A and Strategy B is higher than 10% 1 Sent dillat Oblib, Salanye Bange and Paler Delinguency Sente facial RR Contacts ( figher weschy flationed flangs and Prior Belling, Scoon \$ **\$ £ \$** Both Strategy B and Strategy A. trategy B's approach all balance ranges. Stategy A. Sime gy 4 Smarty & 17,511 \$10,00 (14.0%) (14.10) 414 (01 11 100) 14,141 - ST, 5'D 12 IN 1 - 3 1, THO SP 531 - JOSEGU 12,101 - 51,50 \$4,911 - \$4, ptp 0,47,11 11/01 - 23 HR 00) 75 1 Do 45 1156:0 001/160 C \$1 (1) Buckst ? 8 00 80.01 % + 16 0% 60% 80% 2.0% High Det. Son 4 Gg 500 J @ 38 ■ Strategy B \$ 0 8 e Strategy A **New Entrants** 8 Ø 8 3 1 0 P 100 0.0% 6.0% 0 30% %O **↑** 507 36% g 7.0 90 20 40 20

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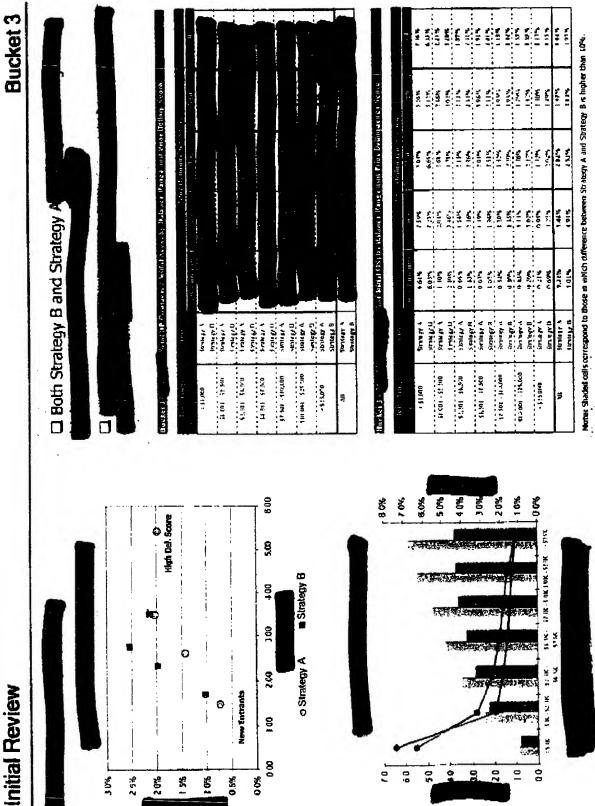
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## Collections Effectiveness Matrix Initial Review

**Bucket 3** 

□ The bucket 3 prior delinquency score mix is very similar for both portfolios. The greatest Bucket 3 represents approximately 8% of variance exists in the high prior delinguency 至 ☐ Highest concentration of balances found between \$10,001-\$25,000 with high prior 21 1 Bucket 3 Prior Delinquency Score Composition Zed BOCS total OS for both portfolios. \*CHASE Š delinquency score. score category. New Entrants 40,800% 35.000% % of Bucker 05 25.000% 15.000% 5.000% 0.000% 30.000% 10.000% SOCS-CCS Merger Integration ž Tuesday, August 02, 2005 7 14.1034 16.1034 15.1034 15.1034 1 1 1 1 3, 151 st Ę 1 1 1 1 1 1 1 1 1 H 8 € \$ \$ \$ \$ \$ \$ \$ \$ 1017 3 . . . 五章 表章 专家 E 5 5 11.00 ž. ž € ₹ \*1619 1 1 1 E 118 215 1 3 5 7 1 1 de ¥ × 91514 \$ **5 5 5** 10.00 ¥.00 Kig. Projektilo Vite Bucket I (Sant Point Bucker 195) Complete the Banker brown franterior DON'S DON'S LIMAR BOUS CITAS. CITAS. BOUS CITAS. 90C3 EDCS FRICE PUCS BOUS. Calle Call C IESSE BOCS CIP GIS FOX3 Portfolio Mix MB (4: 140 D 010515 : 100 n B 0vi 11 tos 11 Sputent Sent tub 002445 10178 53636 35.50L - 14 3no 001 th. 14 18 Pri 1: 10115 HE: 1115 - 105 13 0.0145 S10\*1 52 JPD 18 (0,11) > 43015 >



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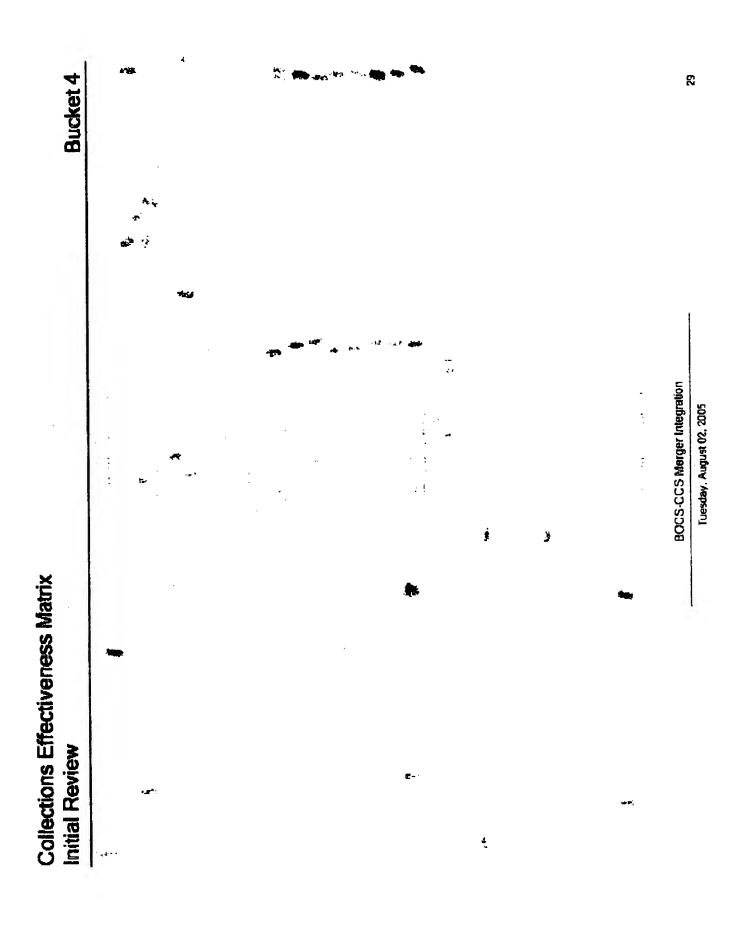
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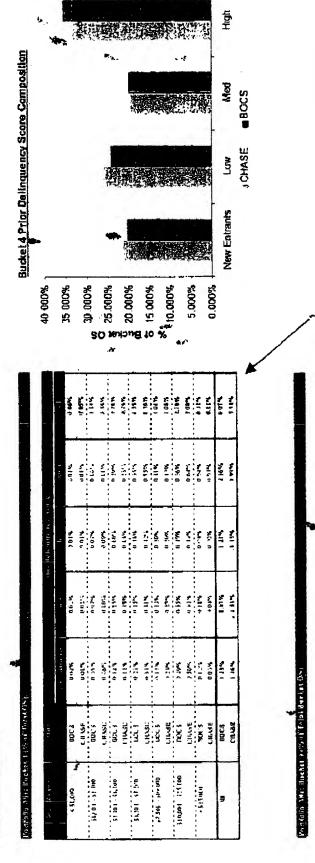
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# Collections Effectiveness Matrix Initial Review

**Bucket 4** 



Bucket 4 represents approximately 6% of total OS for both portfolios.
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□ Bucket 4 prior delinquency score composition is very similar for both portfolios. The greatest variance exists in the Low prior delinquency score category.

☐ Highest concentration of balances in balance range \$10,001-\$25,000 with higher risk level.

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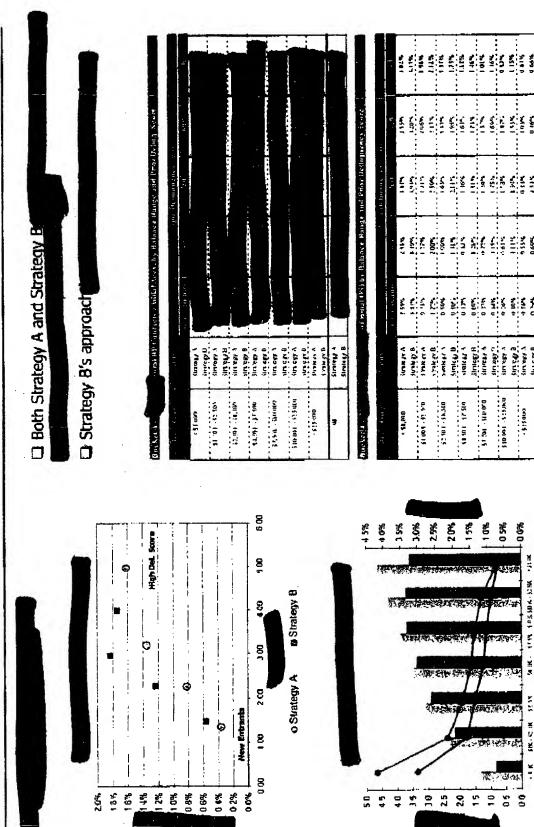
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**Partfolio Mix** 

Collections Effectiveness Matrix Initial Review

Bucket 4

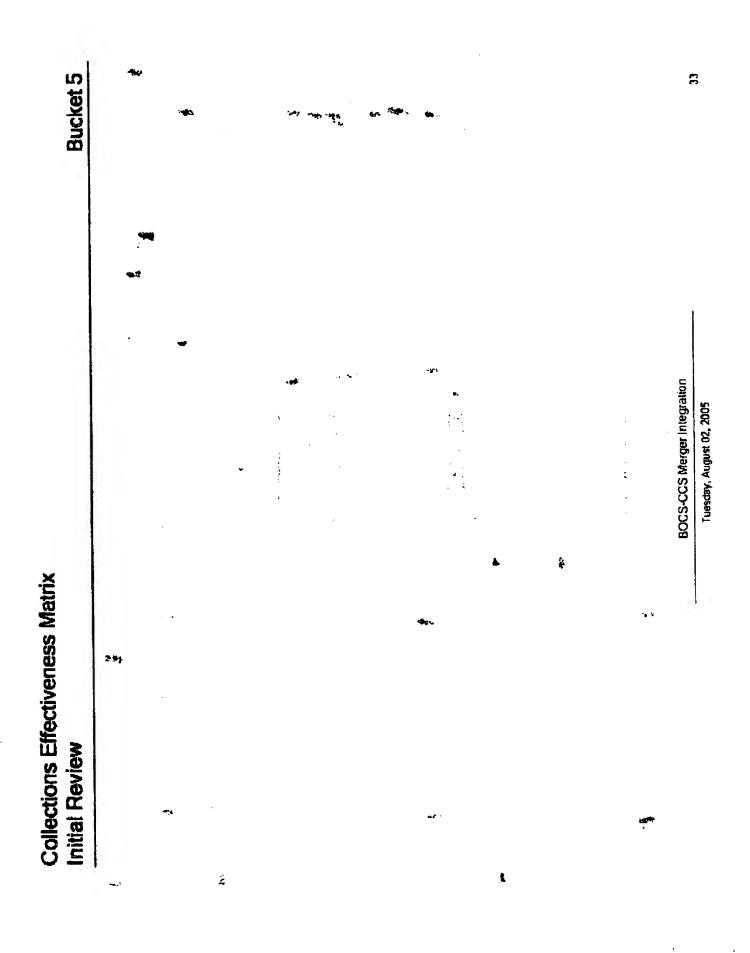


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Tuesday, August 02, 2005



**Bucket 5** 봈 balance ranges except <\$1,000 and >\$25,000 120 0% 1000% % 50 0₹ **600% \$0** 0.0% ☐ There is a less pronounced "U" shape relationship for Charge Off rates as the 5 Page A DESCRIPTION OF THE PERSON OF Balance range increases. 8 練样機 C Strategy B New Entrants **BOCS-CCS Merger Integration** 0.2% 2. 0 900 4. 8. Ľ 94.0 0 3% Š Tuesday, August 02, 2005 S. S. **%** 30.0% 80 B8 50 0% 40.0% 10 OT 80 Og 70 0% 8 8 + 0.0% 85.0% High Balance ■ Strategy B THE SECRET SECTION OF STREETS SECRETARING A SECTION OF Collections Effectiveness Matrix 80 0% Low Bulunce 0 15 0% **છ** o Strategy A %0Q2 Low Balance 65 0% **Initial Review** Top Level View **50.0%** %00 36% 2 5º46 \$ 0.5% ₫ 5% 96+ **1** 0.6% 0.4% 0 2% 9,00 %Z -0° 0.8% . 9

# Collections Effectiveness Matrix Initial Review

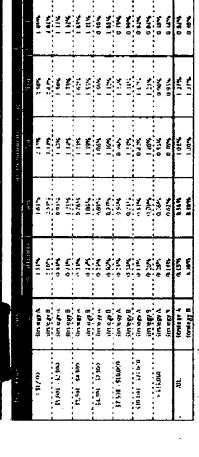
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☐ This bucket is highly concentrated with high risk accounts with balances between \$10,001-\$25,000. ☐ The prior delinquency scare composition is The greatest variance occurs in the Low prior 更 □ Bucket 5 represents approximately 5% of very similar for both portfolios in bucket 5. **Bucket 5** Bucket 5 Prior Delinquency Scare Composition Med BOCS delinquency score category. total OS for both portfolios. CHASE New Entrants 25.060% of Bucker 20.000% 15.000% 35,000% 5.000% 0.000% 30,000% ₽ 10.000% 25.00% 15.03% 15.03% 15.03% 17.03% 111011 # 5.6 Th £ 5 3.3 ٠ د د ž. 1 ... 7. ζ. 3.5 3,18 1101 1 \$101.5 ¥ 16 P 10178 1.10 ¥ <u>\$</u> 95,10 1 5 1 Parifolis Mite Bacy et Sythar Foral Sucket 085) Portiolio Igier dineses eiffene linen OS; CECCH BUCS :: 1793 :: 1793 :: 1793 CHUNGE EOC. CHASE BOCS CHASE CHASE CHASE S 25 CHASE ₩. (XX) CLIASE OCCS UTINAS LITUMS BOCS CRES Portfolio Mix 610 CH 162 TO 040,833 in ni 31 N 12.105 \$0 SHE . ST 510 ויאוויין אַ אַנוּעון 92.991 - 14, ino \$1 301 CHA.500 11965.5 > 5150.00 11 ml - 5: 5.0 035'35 101 15 (4, 101 17 sav - SEM 15 • C \$1 GLA

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decreases as the prior delinquency score level increases, nb APT ginging ; Boltal Ruy, by Balance Bonge, gind Police Belang, Some the Oabetter by Balance Sange and Trine Definited as Senie direct relationship between Strategy B's approach leads to SESSIF. MINDON 11, 34 . 17500 111 tot - 121 ocn \$1.00 E. 12,106 90375 10775 ADL: CO \$7,000 500 30,5 Collections Effectiveness Matrix High Del. Yours 8 ■ Strategy B 38 ø O Strategy A Initial Review Here Entrants 8 0 900 0 35 0.4% 0.0% -% 80 t 0.8% 0.6% % 0 **£** 



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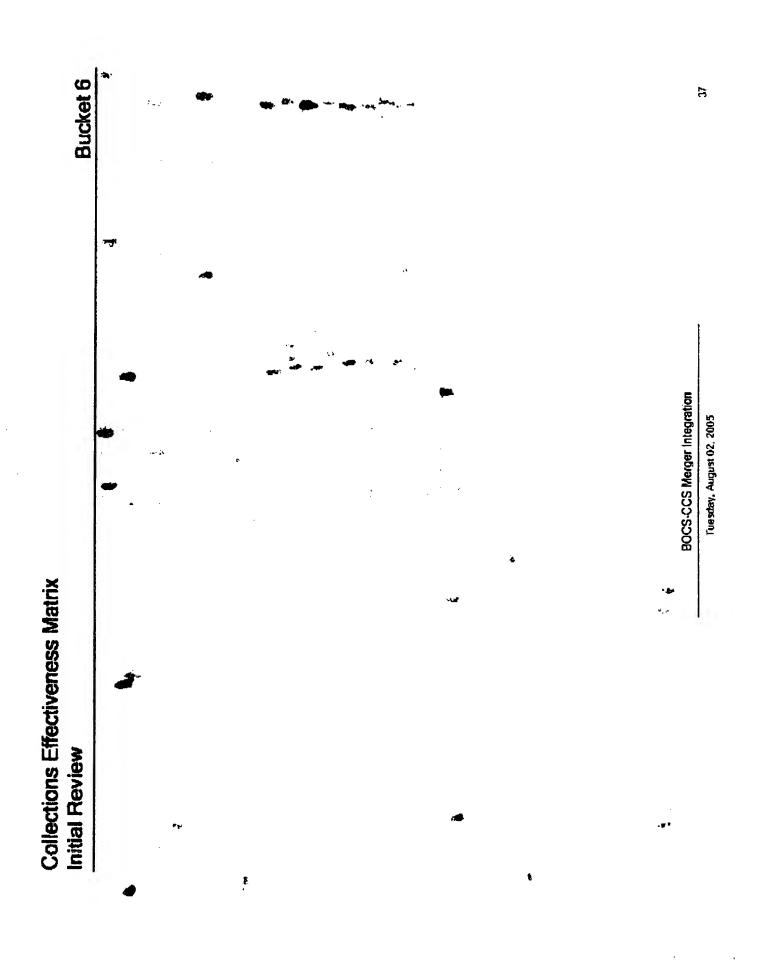
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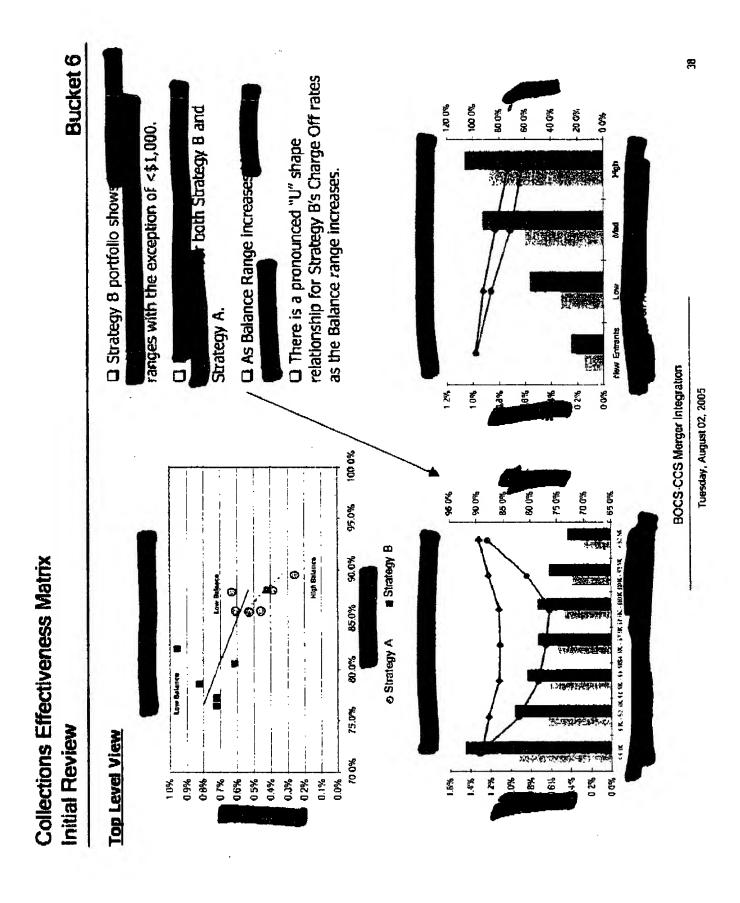
**Bucket 5** 

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# Collections Effectiveness Matrix Initial Review

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**Bucket** 6

\$25,001 with prior delinquency scores that are The prior delinquency score composition is Ę very similar for both portfolios. The greatest Bucket 6 represents approximately 4% of variance exists in the Low prior delinguency ☐ Most significant proportion of balances Bucket 6 Prior Delinguency Score Composition concentrated in balance range \$10,001-Med BOCS total OS for both portfollos. 3 CHASE **New Entrants** score category. of Bucket 05 30.000% 25.000% 10.000% 0.000% 35.000% 5.000% 3 Y C 1 13 TEST 1 1957 21 ¥ : ₹ 2 2 3 X 4 100 E \*100 ΞΞ ¥ ::: 1 \$ <u>\$</u> ¥ × × 11.17 \$17.1 1.11.5 1 . fi : ii ž. ž \$111.5 1 E . E 7100 7100 7100 7100 7100 7100 2 2 2 2 ₹ . ₹ Portions Navi Brockets (Seed, 1 real Box, set 13%) Purificial Mass Booker's concentrations Sport CHASE CHASE SOLS CHASE CHASE CHASE CHASE CHASE (Their Portfolio Mix 1401 - 57 500 Paiels Ivi 15 Statut frinca 11, 101 - 91, 505 201-014 - 101-100 Sperior . i Sylon Q35 25 - 1 to - 11 61. 50 L. 17 Eth (0) 15: 15: 15 (I) (I) 11 11 . C. St. AUD 5 i S + \$1,09A 0.0(13)

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